

ZEMBLEVSKIY, K.K.

AUTHORS:

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8071/2535

TITLE:

Utilization of the Pyrolytic Tar-Wash Product from
Synthetic Alcohol Plants

PERIODICAL: Koks i khimiy, 1960, No.1, pp.44-47

TEXT: In utilizing pyrolytic and natural gas in the production of synthetic alcohol, the gases are cracked in order to increase the alcohol content. The tar formed during the process under the name of pyrolytic tar was treated as a waste product. The authors carried out an investigation of the chemical composition of this product in order to determine its possible application for the production of chemical hydrocarbons. A sample of the tar from the "Koks" works was taken for the investigation (sp. gr. 0.873). The tar contained about 50% of benzole, 10% of toluole, 15% of xylene, 15% of naphtha, 10% of resins, 10% of asphalt, 10% of pitch, 10% of coke, 10% of charcoal, 10% of ash, 10% of dust, 10% of water, 10% of other substances. The authors investigated the tar for the presence of benzole, toluole, xylene, naphtha, resins, asphalt, pitch, coke, charcoal, ash, dust, water, and other substances. The results of the investigation are given in Table 1. The authors conclude that the tar is a valuable product and can be used for the production of chemical hydrocarbons.

Card 1/3

bottom fraction. Laboratory investigations of the washed fraction boiling to 180°C (Table 2) indicated that it can be used for the production of synthetic alcohol (synthetic grade). In view of high wash losses (33-35%) the boiling range of the fraction most suitable for further treatment was determined as 79 to 135°C. Laboratory results were confirmed on a small-scale batch unit (Table 3). The following products can be obtained: benzole 19.7%, toluole 10.6%, naphtha 13.8%, resins 16.2%, washing losses 4.3%. About 65% of benzole can be obtained of a synthetic grade. The residue contained about 65% of unsaturated suitable for the production of resins. However, the residue could not be processed. Their further processing is being investigated. Industrial processing of the pyrolytic tar is being investigated. Industrial to the scheme shown. It consists of batch distillation with the collection of four fractions: forerunners up to 70°C, BTX fraction (live steam) 79 to 90°C, solvent naphtha (live steam) 90 to 100°C and still residues. The washed BTX fraction is distilled on a continuous plant with collection of pure benzole and toluole. The latter are passed through a continuous column which are then passed through a batch unit with the collection of the BTX fraction and residues. It is recommended at present the processing of the pyrolytic tar on existing plants would be advantageous. The design of a special continuous plant of a large capacity for the processing of all the available pyrolytic residues is recommended. There are 2 figures and 4 tables.

ASSOCIATIONS:

Yuzhnyy Khimicheskyy zavod (Yuzhnyy
Koksnyy Zavod) Glazov, I.G., Tolmiz, M.A.,
Golitsyn, M.I., and Zemlevskiy, K.K.
Stalinskyy Khimicheskyy zavod (Stalinskyy
Koksnyy Zavod) Zemlevskiy, K.K.

Card 3/3

ZEMBLINOV, A., inzh.

Photogeodetic tying-in of depth measurement. Rech. transp. 22 no.7:
35-37 JI '63. (MIRA 16:9)
(Hydrographic surveying)

ZEMBLINOV, S

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DLC: HE7.S6

SO: Soviet Transportation and Communications, A Bibliography, Library of Congress, Reference Department, Washington, 1952 Unclassified.

ZEMBLINOV, S. V.

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Vosstanovlenie zheleznodorozhnykh uzlov. [Reconstruction of railroad junctions]. (Sots. transport, 1940, no. 6, p. 39-48).

DLC: HE7.S6

SO: SOVIET TRANSPORTATION AND COMMUNICATIONS, A BIBLIOGRAPHY, Library of Congress Reference Department, Washington, 1952, Unclassified.

ZEMBLINOV, S.

10043

USSR/Railroad Stations 4602.0208

Oct 1947

RR Repair Facilities 4602.0330

Bibliography

"Coordination of Stations and Car Repair Installations"
1 p

"Zh-d Transport" No 10

Prof S. Zemblinov, Dr of Tech Sciences, and I. Aksenov,
Candidate in Mechanical Sciences review favorably
Prof S. Buzanov's "Coordination of Stations and Car
Repair Installations 'Transzheldorizdat'," 1947, 52 pp.
Reviewers consider book useful in throwing light on a
very important problem.

10043

10

ZEMBLINOV, S., professor, doktor tekhnicheskikh nauk

Development of stations and rail centers during the Stalin five-year plans. Zhel.dor.transp. no.11:52-60 N°47. (MLBA 8:12)

1. General-direktor dvizheniya 2-go ranga.
(Railroads--Stations)

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On the problem of standardization in station development. Tekh.
zhel.dor.7 no.10:24 0 '48. (MLRA 8:11)
(Railroads--Stations)

ZEMBLINOV, S.V., prof., doktor tekhn. nauk; SEDOV, V.I., inzh.;
KARETNIKOV, A.D., red.; KHITROV, P.A., tekhn. red.

[Graphic method of calculation for planning stations and junction points] Graficheskiy raschet stantsii i uzlov. Moskva, Gos. transp. zhel-dor. izd-vo, 1950. 42 p.
(Railroad engineering) (MIRA 15:3)

ZEMBLINOV, S.V., doktor tekhnicheskikh nauk

Traffic safety and the design of stations and junctions. Sbor.
trud. Akad. zhel. transp. no.2:5-37 '53. (MLRA 8:9)
(Railroads--Traffic)

ZEMBLINOV, S.V., doktor tekhnicheskikh nauk; STRAKOVSKIY, I.I., kandidat tekhnicheskikh nauk; KHITROV, P.A., tekhnicheskiiy redaktor.

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(Railroads--Stations)

ZEMBLINOV, S.V.
OBRAZTSOV, V.N., 1874-1949; SHAUL'SKIY, F.I., doktor tekhnicheskikh nauk, professor; ZEMBLINOV, S.V., doktor tekhnicheskikh nauk, professor; SOSKOVICH, V.A., doktor tekhnicheskikh nauk, professor; [deceased]; NIKITIN, V.D., doktor tekhnicheskikh nauk, professor; KOCHNEV, F.P., doktor tekhnicheskikh nauk, professor; TIKHOMIROV, N.M.; CHVANOV, V.G., redaktor; ZELENKOVA, Ye.G., tekhnicheskii redaktor

[Selected works] Izbrannye trudy. Moskva, Izd-vo Akademii nauk
SSSR. Vol.1. 1955. 444 p. (MLRA 9:1)
(Railroads) (Transportation)

ZEMBLINOV, S.V.

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22-48 '56. (MLRA 9:9)

(Railroads--Stations)

ZEMBLINOV, S.V., professor, doktor tekhnicheskikh nauk; AKSENOV, I.Ya.,
kandidat tekhnicheskikh nauk; POLYAKOV, A.A., kandidat tekhnicheskikh
nauk; TAL', K.K., kandidat tekhnicheskikh nauk.

More on the construction of railroad lines in the Moscow rail
system. Zhel. dor. transp. 38 no.8:41-45 Ag '56. (MLRA 9:10)

(Moscow--Railroads)

BENESHEVICH, I.I., kandidat tekhnicheskikh nauk; BOGIN, N.M., kandidat
 tekhnicheskikh nauk; BYKOV, Ye.I., inzhener; VLASOV, I.I., kandidat
 tekhnicheskikh nauk; GRITSEVSKIY, M.Ye., inzhener; GRUBER, L.O.,
 inzhener; GURVICH, V.G., inzhener; DAVYDOV, V.N., inzhener; YER-
 SHOV, I.M., kandidat tekhnicheskikh nauk; ZASORIN, S.N., kandidat
 tekhnicheskikh nauk; IVANOV, I.I., kandidat tekhnicheskikh nauk;
 KRAUKLIS, A.A., inzhener; KROTOV, L.B., inzhener; LAPIN, V.B.,
 inzhener; LASTOVSKIY, V.P., dotsent; LATUNIN, N.I., inzhener;
 MARKVARDT, K.G., professor, doktor tekhnicheskikh nauk; MAKHAYLOV,
 M.I., professor, doktor tekhnicheskikh nauk; NIKANOROV, V.A., inzhene-
 ner; OSKOLKOV, K.N., inzhener; OKHOSHIN, L.I., inzhener; PARFENOV,
 K.A., dotsent, kandidat tekhnicheskikh nauk; PERTSOVSKIY, L.M.,
 inzhener; POPOV, I.P., inzhener; PORSHNEV, B.G., inzhener; RATNER,
 M.P., inzhener; ROSSIYEVSKIY, G.I., dotsent, kandidat tekhnicheskikh
 nauk; RYKOV, I.I., kandidat tekhnicheskikh nauk; RYSHKOVSKIY, I.Ya.,
 dotsent, kandidat tekhnicheskikh nauk; RYABKOV, A.Ya., professor
 [deceased]; TAGER, S.A., kandidat tekhnicheskikh nauk; KHAZEN, M.M.,
 professor, doktor tekhnicheskikh nauk; CHERNYSHEV, M.A., doktor
 tekhnicheskikh nauk; EBIN, L.Ye., professor, doktor tekhnicheskikh
 nauk; YURENEV, B.N., dotsent; AKSENOV, I.Ya., dotsent, kandidat
 tekhnicheskikh nauk; ARKHANGEL'SKIY, A.S., inzhener; BARTENEV, P.V.,
 professor, doktor tekhnicheskikh nauk; BERNGARD, K.A., kandidat
 tekhnicheskikh nauk; BOROVY, N.Ye., dotsent, kandidat tekhnicheskikh
 nauk; BOGDANOV, I.A., inzhener; BOGDANOV, N.K., kandidat tekhnicheskikh
 nauk; VINNICHENKO, N.G., dotsent, kandidat ekonomicheskikh nauk;
 (Continued on next card)

BENESHEVICH, I.I.----(continued) Card 2.

VASIL'YEV, V.P.; GONCHAROV, H.G., inzhener; DERIBAS, A.T., inzhener;
 DOBROSELSKIY, K.M., dotsent, kandidat tekhnicheskikh nauk; DLUGACH,
 B.A., kandidat tekhnicheskikh nauk; YEFIMOV, G.P., kandidat tekhnicheskikh nauk;
 ZEMBLINOV, S.V., professor, doktor tekhnicheskikh nauk; ZABELLO, M.L., kandidat tekhnicheskikh nauk; IL'IN, K.P.,
 kandidat tekhnicheskikh nauk; KARAFNIKOV, A.D., kandidat tekhnicheskikh nauk;
 KAPLUN, F.Sh., inzhener; KANSHIN, M.D.; KOCHNEV, F.P., professor, doktor tekhnicheskikh nauk;
 KOQAN, L.A., kandidat tekhnicheskikh nauk; KUCHURIN, S.P., inzhener; LEVASHOV, A.D., inzhener;
 MAKSIMOVICH, B.M., dotsent, kandidat tekhnicheskikh nauk; MARTYNOV, M.S., inzhener;
 MEDEL', O.M., inzhener; NIKITIN, V.D., professor, kandidat tekhnicheskikh nauk;
 PADNYA, V.A., inzhener; PANTELEYEV, P.I., kandidat tekhnicheskikh nauk;
 PETROV, A.P., professor, doktor tekhnicheskikh nauk; POYOROZHENKO, V.V., professor, doktor tekhnicheskikh nauk;
 PISKAREV, I.I., dotsent, kandidat tekhnicheskikh nauk; SERGEYEV, Ye.S., kandidat tekhnicheskikh nauk;
 SIMONOV, K.S., kandidat tekhnicheskikh nauk; SIMANOVSKIY, M.A., inzhener; SUYAZOV, I.G., inzhener;
 TALDAYEV, F.Ya., inzhener; TIKHONOV, K.K., kandidat tekhnicheskikh nauk; USHAKOV, N.Ya., inzhener;
 USFENSKIY, V.K., inzhener; FEL'DMAN, E.D., kandidat tekhnicheskikh nauk;
 FERAPONTOV, G.V., inzhener; KHOKHLOV, L.P., inzhener; CHERNOMORDIK, G.I., professor, doktor tekhnicheskikh nauk;
 SHAMAYEV, M.F., inzhener; SHAFIRKIN, B.I., inzhener; YAKUSHIN, S.I., inzhener;
 ORANOVSKIY, P.G., redaktor; TISHCHENKO, A.I., redaktor; ISAYEV, I.P., dotsent, kandidat tekhnicheskikh nauk, redaktor;
 KLIMOV, V.F., dotsent kandidat tekhnicheskikh

(Continued on next card)

BENESHEVICH, I.I.--- (continued) Card 3.

nauk, redaktor; MARKOV, M.V., inzhener, redaktor; KALININ, V.K.,
inzhener, redaktor; STEPANOV, V.R., professor, redaktor; SIDOROV, N.I.,
inzhener, redaktor; GERONIMUS, B.Ye., kandidat tekhnicheskikh nauk,
redaktor; ROBEL', R.I., otvetstvennyy redaktor

[Technical reference manual for railroad engineers] Tekhnicheskii
spravochnik zheleznodorozhnika. Moskva, Gos. transp.zhel-dor. izd-vo.
Vol.10. [Electric power supply for railroads] Energosnabzhenie zhelez-
nykh dorog. Otv.red. toma K.G.Markvardt. 1956. 1080 p. Vol.13.
[Operation of railroads] Eksploatatsiia zheleznykh dorog. Otv. red.
toma R.I.Robel'. 1956. 739 p. (MLRA 10:2)

1. Chlen-korrespondent Akademii nauk SSSR (for Petrov)
(Electric railroads) (Railroads--Management)

ZEMBLINOV, S.V.

BUZANOV, S.P., professor, doktor tekhnicheskikh nauk; ZEMBLINOV, S.V.,
professor, doktor tekhnicheskikh nauk.

Some problems in the development of stations and junctions. Zhel.
dor.transp.38 no.12:32-35 D '56. (MIRA 10:2)
(Railroads--Stations)

ZEMBLINOV, S.V., professor.

Reducing the cost of building double track railroads and their service to the population where there are long runs between stations. Sbor.trud.Akad.shel.transp. no.4:111-124 '56. (MLRA 10:2)
(Railroads--Cost of construction)

ZEBLINOV, S.V., prof.

Effect of the type of railroad centers on the circulation of
railroad cars, Sbor. trud. Akad. zhel. transp. no.1:47-59 52.

(MIRA 11:3)

1. Zavoduyushchiy kafedroy ekspluatatsii zheleznykh dorog Akademii
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(Railroads--Stations)

POLYAKOV, Aleksey Aleksandrovich; ZEMBLINOV, S.V., Prof., doktor tekhn.
nauk, otvetstvennyy red.; ~~BEKASOVA~~, L.H., red. izd-va; MARKOVICH,
S.G., tekhn. red.

[Problems of the development of transportation in large cities]
Voprosy razvitiia vnutrigorodskikh putei soobshcheniia v bol'shikh
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(Traffic engineering) (Moscow---Subways)

ZEMBLINOV, S.V., prof., doktor tekhn.nauk; BURAKOV, V.A., inzh.;
~~OSERBISTER~~, A.M., mladshiy nauchnyy sotrudnik; POLYAKOV, A.A.,
doktor tekhn.nauk, starshiy nauchnyy sotrudnik; PERSIANOV, V.A.,
mladshiy nauchnyy sotrudnik; TAL', K.K., kand.tekhn.nauk,
starshiy nauchnyy sotrudnik; KHODATAYEV, V.P., kand.tekhn.
nauk. Prinimal uchastiye: ANDRULIONIS, Ye.P., kand.tekhn.
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nauk, red.; KHITROV, P.A., tekhn.red.

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Osnovy postroeniia transportnykh uzlov. Pod obshchei red.
S.V.Zemblinova. Moskva, Gos.transp.zhel-dor.izd-vo, 1959.
464 p. (MIRA 12:9)

(Transportation) (Streets)

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Economic aspects of building viaducts for railroad junctions.
Transp.stroi. 9 no.9:41-42 S '59. (MIRA 13:2)
(Railroads--Crossings) (Viaducts)

PLATONOV, A.I., prof., doktor tekhn.nauk; ~~ZEMBLINOV~~, S.V., prof., doktor tekhn.nauk

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(Railroads--Management)

SAVCHENKO, Ivan Yefimovich, kand. tekhn. nauk; ZEMBLINOV, Sergey
Vladimirovich, doktor tekhn. nauk; STRAKOVSKIY, Isaak
Israelievich, kand. tekhn. nauk; TSARENKO, A.P., inzh., red.;
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[Railroad stations and junctions] Zheleznodorozhnye stantsii i
uzly. [By] I.E. Savchenko i dr. Moskva, Transzheldorizdat,
1962. 410 p.

(MIRA 16:2)

(Railroads—Stations)

ZEMBLINOV, Sergey Vladimirovich, doktor tekhn. nauk; STRAKOVSKIY,
~~Isak Izrailevich, kand. tekhn. nauk; USENKO, L.A., tekhn.~~
red.

[Album of plans for the layout of station and junction components]
Al'bom skhem elementov stantsii i uzlov. Izd.2., perer. i dop.
Moskva, Transzheldorizdat, 1962. 89 p. (MIRA 16:3)
(Railroads--Stations)

ZEMBLINOV, S.V.; STRAKOVSKIY, I.I.; KARLOVSKIY, S.A., inzh.,
retsenzent; SHATUNOV, V.G., inzh., red.; USENKO, L.A.,
tekhn. red.

[Stations and junctions] Stantsii i uzly. Moskva, Trans-
zheldorizdat, 1963. 347 p. (MIRA 17:2)

DZHUNKOVSKIY, Nikolay Nikolayevich, zasl. deyatel' nauki i tekhniki
RSFSR, prof., doktor tekhn. nauk; KASPARSON, Avgust
Al'fredovich, dots., kand. tekhn. nauk; SMIRNOV, Gleb
Nikolayevich, dots., kand. tekhn. nauk; SIDOROVA, Aleksandra
Grigor'yevna, dots., kand. tekhn. nauk; Prinimali uchastiye:
ZIMBLINOV, S.V., doktor tekhn. nauk, prof.; PANTELEYEVV, P.I.,
kand. tekhn. nauk; YAVLENSKIY, S.D., inzh., retsenzent;
SKOBELING, L.V., inzh., nauchn. red.

[Harbors and harbor structures] Porty i portovye sooruzhenia.
[By] N.N.Dzhunkovskii i dr. Moskva, Stroizdat. Pt.1. 1964.
341 p. (MIRA 17:10)

1. Kafedra vodnogo khozyaystva i morskikh portov Moskovskogo
inzhenerno-stroitel'nogo instituta im. V.V.Kuybysheva (for
all except Yavlenskiy, Skobeling). 2. Zaveduyushchiy kafedroy
vodnogo khozyaystva i morskikh portov Moskovskogo inzhenerno-
stroitel'nogo instituta im. V.V.Kuybysheva (for Dzhunkovskiy).

ZEMBLINOV, S.V., prof., doktor tekhn.nauk

Development of the Moscow railroad and transportation system for
a long-term planning. Zhel.dor.transp. 46 no.6:56-60 Je '64.

(MIRA 18:1)

BORECKI, Marcin, prof. mgr. inz.; RADOWICKI, Tadeusz, doc. mgr. inz.;
SAWKA, Bohdan, mgr. inz.; RATAJSKI, Zbigniew, inz.; ZEMBOK,
Wladyslaw, mgr. inz.

Technical characteristics and operation of GIG type hydraulic
props. Przegl gorn 20 no.11:521-529 N '64.

ZEMBORAK, K.

POLAND / Physical Chemistry. Thermodynamics. Thermo-chemistry. Physico-Chemical Analysis. Phase Transition.

B

Abs Jour: Ref Zhur-Khimiya, No 11, 1958, 35361

Author : I) Zemborak K., Monczynska Z., Monczynski A.
II) Zemborak K., Ciszewski K.

Inst : Not given

Title : Heteropolyazeotropic Systems. I) Methanol- η -Paraffin Hydrocarbon System. II) Acetonitrile- η -Paraffin Hydrocarbon System.

Orig Pub: I) Bull. Acad. Polon. Sci., 1956, Cl. 3, 4, No 3, 149-153; No 12, 823-827; II) Bull. Acad. Polon. Sci., 1956, Cl. 3, 4, No 3, 153-157

Abstract: A series of boiling constant-pressure lines under

Card 1/4

POLAND / Physical Chemistry. Thermodynamics. Thermo-chemistry. Physico-Chemical Analysis. Phase Transition.

B

Abs Jour: Ref Zhur-Khimiya, No 11, 1958, 35361

Abstract: normal pressure of binary methanol mixtures (I) with η -heptane (II), η -octane (III), η -nonane (IV), η -decane (V) and η -undecane has been investigated. Boiling temperatures of homoazeotropes: I-II 59, 1° C; I-III 63, 0° C; I-IV 64, 4° C, as well as of heteroazeotropes: I-V 64.93° C, I-VI 65.05° C have been determined. A series of heterogeneous systems (A, H1), formed by a A-agent and a series of paraffin hydrocarbons has been classified. Three groups of double-component systems, type (AH1) demonstrating the successive transition process from homoazeotropic to heteroazeotropic systems passing through homoazeo-heteroazeotropic systems have been marked down in relation to the

Card 2/4

5

POLAND / Physical Chemistry. Thermodynamics. Thermo-chemistry. Physico-Chemical Analysis. Phase Transition.

B

Abs Jour: Ref Zhur-Khimiya, No 11, 1958, 35361

Abstract: variation of the critical solubility temperature of AHi systems with the rise of the homolog Hi boiling temperature.
II. A series of Boiling temperature isobars of binary acetonitrile mixtures with η -heptane, η -octane, η -nonane, η -decane and η -undecane, especially interesting since their critical solubility temperature is higher than the boiling temperature of acetonitrile (81.55°C) has been investigated. A regular transition from heteroazeotropic to heteroazeotropic systems has been noted.

Card 3/4

POLAND / Physical Chemistry. Thermodynamics. Thermo-chemistry. Physico-Chemical Analysis. Phase Transition.

B

Abs Jour: Ref Zhur-Khimiya, No 11, 1958, 35361

Abstract: The critical solubility temperatures of the specified systems have been investigated; the critical concentration (mole %) of hydrocarbon diminishes linearly with the increase of the hydrocarbon chain length; the critical solubility temperature rises with the increase of the number of carbon atoms in hydrocarbon.

Card 4/4

6

ZEMBORAK, K.
USSR/Physical Chemistry, Thermodynamics, Thermochemistry,
Equilibriums, Phys-Chem. Anal. Phase-Transition

B-8

Abs Jour : Ref Zhur - Khimiya, No 7, 1957, 22281

Author : V. Swietoslowski, K. Zemborak, I. Stetski.
Inst : Not given
Title : Binary system classification

Orig Pub : Byull. Polskoy A.N. 1956, Otd 3,4, No 2, 93-95.

Abstract : A classification of bicomponent liquid systems with limited mutual solubility is exposed. Equilibriums in vapor-liquid and vapor-two liquids systems at big variations of temperatures and pressures are studied. Cases are reviewed when a transition of a heteroazeotrope into a homoazeotrope is observed at a temperature lower than the critical solubility temperature (disappearance of one of the liquid phases takes place under the critical solubility temperature). The necessity of experimental and theoretical studies is indicated for determining conditions of formation of heteroazeotropes only or of gradual transformation of heteroazeotropes into homoazeotropes. The terms - definition is given earlier (V. Swietoslowski Ebullio-metric measurements, New York, Rheinhold Publ. Corp. 1945).

Card 1/1

-92-

ZEMBORAK, K.
Poland/Physical Chemistry - Thermodynamics. Thermochemistry. Equilibrium. Physico-chemical Analysis. Phase Transitions, B-8

Abst Journal: Referat Zhur - Khimiya, No 1, 1957, 339

Author: ~~Zemborak~~, K., and Gal'skaya, A.

Institution: Polish Academy of Sciences

Title: A Method for Determining the Composition of Four-Component Azeotropes and the Location of the Heteroazeotropic Line

Original

Periodical: Byul. Pol'skoy AN, Sec 3, 1955, Vol 3, No 7, 379-383

Abstract: On the basis of the system benzol (I)-cyclohexane (II)-ethanol (III)-water (IV) a method has been developed for investigating 4-component azeotropes; the method is based on the ebulliometric determination of the location of the heteroazeotrope line when the ratio of the concentrations of the 2 components which most closely resemble each other in their physicochemical properties is known. In the case of the system I-II-III-IV, I and II are a pair of such components. The following composition has been found for the azeotropes II-III-IV (in

Card 1/2

Poland/Physical Chemistry - Thermodynamics. Thermochemistry. Equilibrium. Physico-chemical Analysis. Phase Transitions, B-8

Abst Journal: Referat Zhur - Khimiya, No 1, 1957, 339

Abstract: weight percent): 75.5 II, 19.7 III, 4.8 IV, and I-II-III-IV: 54.3 II, 20.4 I, 19.2 III, and 6.1 IV. The boiling points of the 2 azeotropes are $62.6 \pm 0.05^\circ$ and $62.14 \pm 0.05^\circ$.

Card 2/2

24(8) PHASE I BOOK EXPLOITATION 507/2809

Akademiya nauk SSSR, Otdeleniye khimicheskikh nauk

Termodinamika i stroeniye rastvorov; study zoveshchaniya...
(Thermodynamics and Structure of Solutions; Transactions of the
Conference Held January 27-30, 1958) Moscow, Izd-vo AN SSSR,
1959. 295 p. 3,000 copies printed.

Ed.: M. I. Shubparov, Doctor of Chemical Sciences; Ed. of Publishing
House: M. G. Yegorov, Tech. Ed.: V. V. Polyakova.

PURPOSE: This book is intended for physicists, chemists, and
chemical engineers.

COVER: This collection of papers was originally presented at the
Conference on Thermodynamics and Structure of Solutions sponsored
by the Section of Chemical Sciences of the Academy of Sciences,
USSR, and the Department of Chemistry of Moscow State University,
and held in Moscow on January 27-30, 1958. Officers of the
conference are listed in the Foreword. A list of other reports
also read at the conference, but not included in this book,
are given. Among the problems treated in this book are: electro-
lytic solutions, ultrasonic measurements, spectro-
scopic analysis, and various other topics accompanying individual articles.

Mathematics: Problems of the Thermodynamic
Theory of Solutions of Nonelectrolytes

36	36
43	43
48	48
49	49
56	56
67	67
72	72
79	79
87	87
93	93
97	97
105	105
118	118
122	122
126	126
133	133
140	140
144	144
152	152

ZEMBOVSKIY, I., inzhener.

"Mosbass" timbering. Mast. ugl. 6 no. 9:19-20 S '57. (MIRA 10:11)
(Mine timbering)

28(3)

S/028/60/000/ 01/015/033
D041/D002

AUTHOR: Zembovskiy, I.F., and Filippov, M.M.

TITLE: Unification of Parts by Using the Group Method
of Machining

PERIODICAL: Standartizatsiya, 1960, Nr 1, pp 42-43 (USSR)

ABSTRACT: Some machine building plants, and particularly
the Laptevskiy zavod ugol'nogo mashinostroyeniya
(Laptevo Coal Mining Machine Plant) have started
using the "group method" for machining parts,
suggested by S.P. Mitrofanov, Lenin prize laureate. ✓
The method consists in splitting machine parts in-
to groups of similar configuration, dimensions, and
according to the required production processes.
For every group of parts, special machining equip-
ment is produced, and machine tool attachments
adjusted. The "group method" considerably reduces
the quantity of equipment required, cuts expenses,
and increases the work productivity by 25 to 40%.

Card 1/1

ZEMBOVSKIY, I.F., inzh.; FILIPPOV, M.M., inzh.

Standardizing rubber packings. Standartizatsia 23 no.2:32-33
F '59. (MIRA 12:1)

1. Iaptavskiy zavod "Uglemash."
(Packing (Mechanical engineering)--Standards)

~~ZEMBOVSKIY, I.P.~~

Office of standardization at a coal mining machinery plant.
Standartizatsiia 26 no.5:48-49 My '62. (MIRA 15 7)
(Laptevo--Coal mining machinery--Standards)

ZEMBOVSKIY, I. F. -- ingh.

Standardization of rolled steel assortment. Standartizatsiia 22
no.3:79-80 My-Je '58. (MIRA 11:7)

1. Laptrevskiy zavod "Uglenash."
(Steel industry--Standards)

AUTHOR: Zembovskiy, I.F., Engineer 28-58-3-29/39

TITLE: Unification and Normalization of a Rolled-Metal Stock
(Unifikatsiya i normalizatsiya sortamenta prokata)

PERIODICAL: Standartizatsiya, 1958, Nr 3, pp 79-80 (USSR)

ABSTRACT: Information on the results of work carried out up to now by the Bureau of Normalization and Standardization (Byuro normalizatsii i standartizatsii) of the Laptevskiy zavod ugol'nogo mashinostroyeniya (Laptev Coal-Mining Machine Building Plant) is given. The assortment of rolled metal used by the plant was reduced considerably. The number of different pipe type-sizes was reduced from 40 to 29, of 11 strip sizes 8 were left, etc. The entire assortment of rolled material still in use is given in table 2. The selection was based on the preference number system as indicated in table 1. There are 2 tables.

ASSOCIATION: Laptevskiy zavod "Uglemash" (Laptev Plant "Uglemash")

Card 1/1 1. Industrial plants--Standards

25(5)

AUTHORS:

Zembovskiy, I.F. and Filippov, M.M., Engineers

SOV/28-59-2-9/26

TITLE:

Unification of Rubber Sealings (Unifikatsiya uplotneniy iz reziny)

PERIODICAL:

Standartizatsiya, 1959, Nr 2, pp 32-33 (USSR)

ABSTRACT:

The Laptevo Coal Mining Machine Building Plant uses many different rubber sealings and components with varying rubber bases. The plant's office for standardization and normalization reduced the number of rubber grades from 11 to 4 without affecting the quality of the product. The authors stress the need to standardize manufacture of circular section rubber sealing rings. At present the Tula and Moscow technical rubber equipment plants manufacture the rings from press-forms designed and produced by the plants themselves. Centralized production of these rings by specialized plants will cut down the production costs.

ASSOCIATION:

Laptevskiy zavod "Uglemash" (The Laptevo "Uglemash" Plant)

Card 1/1

Zembovskiy, I.F., inzh.

Shell-casting molds made of mixtures bound with water glass.
Izotr. 1 rats. no.8:21 Ag '58. (MIRA 11:9)
(Shell molding (Founding))

ZEMBRAT-NIEWIADOMSKA, Zofia

Antagonistic action of coli bacteria on Salmonella typhi.
Med. dosw. mikrob. 8 no.3:293-297 1956.

1. Z Krakowskiej Wytworni Surowic i Szczepionek.
(ESCHERICHIA COLI,
 antag. to Salmonella typhosa (Pol))
(SALMONELLA TYPHOSA,
 antag. of E. coli (Pol))

ZEMBRZUSKI, Jan, mgr inż.

Calculation of the electrodynamic forces in stator end windings of turbogenerators by using a digital computer. Przegl elektro-techn 40 no.5:204-206 My '64.

1. Department of Electric Machines, Institute of Electrical Engineering, Warsaw.

ZEMBRZUSKI, Jan, mgr inż.

Mechanical stresses in rotator cores of large turbogenerators. Inst
elektrotech prace 10 no.29:1-22 '62.

1. Zakład Maszyn Elektrycznych, Instytut Elektrotechniki, Warszawa.

ZEMBRZUSKI, Jan, Mgr.inz.

Symmetry analysis of multiple-circuit armature windings in turbine generators. Inst Elektrotech 9 no.26:81-111 '61.

1. Zaklad Maszyn Elektrycznych, Warszawa.

ZEMBRZUSKI, KATIMIERZ

Parowozy. (Wyd. 1.) Warszawa, Panstwowe Wydawn. Naukowe. (Loco-
motives. 1st ed. illus. , bibl. , diagsr. , graphs, index)

Vol. 1. (Theory of train movement, hearths) 1954. 258 p.

SOURCE: East European Accessions List, (EEAL), Library of Congress,
Vol. 4, no. 12, December 1955

COMMON ELEMENTS		SUBJECTS AND PROPERTIES INDEX		MATERIALS INDEX		E-2 INDEX	
ZEMBRZUSKI, K.							
<p>3027. HEAT EMISSION BY FURNACE GASES IN FIRE-TUBES OF STEAM BOILER. Zembrzusi, K. (Przeglad Mech. (Mech. Rev.), July-Sept. 1949, 201-208; abstr. in Polish Tech. Abstr., 1961, (1), 37). Simlification applied in computation of heat exchange between combustion gases and water through the plate walls of fire tubes. Conditions necessary to obtain as exact a solution as possible of the problem of heat exchange. Dependence on temperature of specific heat of combustion gases and of heat exchange coefficient. Equation of temperature fall of combustion on gases in fire tubes. The quantity of heat absorbed by water in the boiler. Heating efficacy of the surface of fire tubes.</p>							
<p>ASH-SLA METALLURGICAL LITERATURE CLASSIFICATION</p>							
<p>GROUPS: 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100</p>							

ZEMBRZUSKI, K.

Calculation of heat exchange in the fire tubes of a locomotive engine. p. 309.
ARCHIWUM BUDOWY MASZYN Warszawa, Vol. 1, no. 3, 1954.

SO: Monthly List of East European Accessions, (EEAL), LC, Vol. 4, no. 10, Oct. 1955,
Uncl.

EXCERPTA MEDICA Sec.6 Vol.10/12 Internal Medicine D'56

7132. ZEMBRZUSKI K. Wojewódzkiej Stacji Sanit. -Epidemiol., Olsztynie.

*Czterdzieści dwa przypadki tularemii. Forty-two tularaemia cases
POL. ARCH. MED. WEWNĘT. 1955, 25/2 (377-386) Tables 7

The author's observations on 42 cases recognized in Poland in 1950 are reported. The origin of the outbreak was linked with consumption of a killed hare. The incubation period of the infection ranged from 1 to 10 days, mostly 6 days. The onset of the disease was abrupt in all cases which are classified as follows: glandular 1 case, oculo-glandular 2 cases, pharyngeal-glandular with tonsillitis 20 cases, intestinal forms 19 cases. A relative bradycardia was found frequently during the febrile period. Bacterium tularensis was isolated from the secretion of the patient's pharynx. Clinical diagnosis was confirmed in all 42 cases by positive agglutination with B. tularensis.

Anigstein - Galveston, Tex. (XX, 6)

Poland

G

Abs Jour : Ref Zhur - Biologiya, No 22, 1958, No 99553
Author : Zembrzuski, K.
Inst : Not given
Title : Mass Investigation of the Parasitic Fauna of the Intestinal Tract of Man in Poland in 1955.
Orig Pub : Wiadom.parazytol., 1957,3,No.6,575-586.
Abstract : After investigation of 40,678 men from various districts of Poland the following parasites were registered: armed tapeworm (Taenia solium), unarmed tapeworm (Taenia saginata) and dwarf tapeworm (Hymenolepis nana), ascarides, whipworm (Trichuris trichiura), Oxyuria and Lamblia.

Card 1/1

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ZEMBRZUSKI, K., prof.

New trends in the construction of internal combustion locomotives.
Przegl techn 81 no.10:4-6 '60.

ZEMBRZUSKI, Kazimierz, prof.

"Hydraulic couplings and intensifiers" by Mauricio Wolf. Reviewed
by Kazimiera Zembrzuski. Przegl mechan 21 no.23:743 10 D '62.

ZEMBRZUSKI, Kazimierz, prof.

"Foettinger couplings and Foettinger gear" by Ernst Kickbusch.
Reviewed by Kazimierz Zembrzusi. Przegl mech 22 no. 23:
743-744 10 D '63.

ZEMERZUSKI, KAZIMIERZ.

"Parowozy (Wyd. 1.) Warszawa, Panstwowe Wydawn. Naukowe (Locomotives.
1st ed. illus., bibl., diags., graphs, indexes)

Col. 2. (Heat exchange, boilers, feeding of boilers, draft devices) 1956.
276 p.

SO: Monthly Index of East European Accessions (EEAI) LC. Vol 7, no. 4,
April 1958

ZEMBRZUSKI, Konrad

First cases of tularemia in Poland, Przegl. epidem. 8 no.1:
31-36 1954.

1. Z Wojewodskiej Stacji Sanitarno-Epidemiologicznej w Olsztynie
(TULAREMIA, epidemiology,
Poland, first cases)

ZIMBRZUSKI, Konrad

Some nonspecific reactions in larval ascariasis. Wlad parazyt.
10 no.4:306-307 '64

1. Zaklad Parazytologii Lekarskiej Panstwowego Zakladu Higieny,
Warszawa.

ZEMBRZUSKI, Konrad /

Leukergy in larval ascaridosis. Acta parasit Pol 12 no.13/18:193-194
'64.

1. State Institute of Hygiene, Warsaw.

ZEMBRZUSKI, Kazimierz, prof,

Operation principles and characteristics of hydrodynamic intensifiers. Przegl mech 21 no.16:485-489 25 Ag '62.

1. Politechnika, Warszawa.

ZEMBRZUSKI, Kazimierz, prof.

Operation principles and characteristics of hydrodynamic intensifiers. Przegl mech 21 no.17:534-537 10 S '62.

1. Politechnika, Warszawa.

ZEMBRZUSKI, Konrad

Pharyngo-bubonic form of tularemia. Otolar. polska 8 no.4:279-288 1954.

1. Z Wojewodzkiej Stacji Sanitarno-Epidemiologicznej w Olsztynie.
(TULAREMIA,
pharyngo-bubonic form)
(PHARYNX, diseases,
tularemia, bubonic form)

ZEMERZUSKI, Konrad

Effect of urbanization on the epidemiology of the helminthiases.
Acta parasit Pol 12 no.1/12:65-75 '64.

1. State Institute of Hygiene, Warsaw, Head: Prof. Dr. Feliks
Prasmycki.

ZEMBRZUSKI, Konrad

Efficient parasitological methods used in Poland for the diagnosis of enterobiosis, ascariidosis, and trichocephalosis. Wiad. parazyt. 11 no.1:17-23 ' 65

1. Panstwowy Zaklad Higieny, Warszawa

ZEMBRZUSKI, Konrad

Oculo-bubonic form of tularemia. Klin. oczna 24 no.1:29-34 1954.

1. Z Wojewodskiej Stacji Sanitarno-Epidemiologicznej w Olsztynie.

(EYE, diseases,

*tularemia, oculo-bubonic form)

(TULAREMIA,

*oculo-bubonic form)

(LYMPH NODES, diseases,

*tularemia, oculo-bubonic forms)

ZEMBRZUSKI, Konrad

Results of mass examinations of gastrointestinal parasitic fauna in Polish population in 1955. *Pediat. polska* 33 no.8:977-980 Aug 58.

1. Z Zakładu Higieny Szkolnej PZH w Warszawie Kierownik: prof. dr nauk med. M. Kacprzak. Adres: Warszawa, ul. Chocimska 24, Zakład Higieny Szkolnej PZH.

(GASTROINTESTINAL DISEASES, in inf. & child
helminth infect. in Poland (Pol))

(HELMINTH INFECTIONS, in inf. & child
gastrointestinal, in Poland (Pol))

Zembrzuski, Konrad
ZEMBRZUSKI, Konrad

Results of mass survey of gastrointestinal parasitic fauna in human subjects in Poland in 1954. Wiadomości parazyt., Warsz. 3 no. 5:473-475 1957.

1. Z Zakładu Higieny Szkolnej PZH w Warszawie.
(HELMINTH INFECTIONS, epidemiology,
in Poland, mass survey (Pol))

ZEMBRZUSKI, Konrad

Mass investigation of human gastrointestinal parasitic fauna in Poland in 1955. Wiadomosci parazyt. Warsz. 3 no.6:575-586 1957.

1. Z Zakladu Higieny Szkolnej Panstwowego Zakladu Higieny w Warszawie.
(HELMINTH INFECTION, statistics,
in Poland (Pol))

ZEMBRZUSKI, Konrad

ZEMBRZUSKI, Konrad

Mass studies of parasitic intestinal fauna in Poland in 1954. Przegl. epidem., Warsz. 11 no.3:297-306 1957.

1. Z Zakladu Higieny Szkolnej Panstwowego Zakladu Higieny w Warszawie
Kierownik: prof. dr nauk med. M. Kacprzak.

(HELMINTHS,

Incidence in feces in Poland (Pol))

POLAND

ZEMBRZUSKI, Konrad.

State Institute of Hygiene (Zakład Parazytologii
P.Z.H. [Państwowy Zakład Higieny]), Warsaw.

Warsaw, Acta Parasitologica Polonica, Fasc. 20,
30 June 1965, pp 191-204

"Sources of infection with Enterobius vermicularis,
Ascaris lumbricoides and Trichocephalus trichiurus
in Poland."

ZEMBRZUSKI, Konrad

Epidemiological data on tapeworm infections. Wlad. parazyt. 11
no. 3:161-164 '65.

1. Panstwowy Zaklad Higieny, Warszawa.

ZEMBRZUSKI, K.

Problems of the planned electrification of some lines on the Polish State Railroads.
p.220.

PRZEGLAD KOLEJOWY. Warszawa, Poland, Vol. 11, no. 6, June, 1959.

Monthly List of East European Accessions (EEAI), LC, Vol. 8, no. 9, September, 1959.
Uncl.

ZEMERZUSKI, K,

The selection of parameters of the internal-combustion engines for railroad vehicles. p. 81.

PREZEGIAD KOLEJOWY. (Wydawnictwa Komunikacyjne) Warszawa, Poland.
Vol. 11, no. 3, Mar. 1959

Monthly list of East European Accessions Index, (EEAI) IC, Vol. 8, no. 66
June 1959
uncla.

ZEMERZUSKI, Kazimierz, prof.

Coreport on the premises and initial design of the CD19 combustion engine for railroads. Biul techn Cegielski 6 Special issue:15-19 '62.

ZEMBRZYCKA, A.

Researches into domestic production and handicrafts in the villages of Podhale.
Tr. from the Polish.

P. 408, (Slovensky Narodopis) Vol. 5, no. 3/4, 1957, Praha, Czechoslovakia

SO: Monthly Index of East European Accessions (EEAI) Vol. 6, No. 11, November 1957

ZEMBRZYCKA, Halina; ZAKIENICZ, Marek

Tumor of the glomus aorticus in the dog. Pat. Vol. 15 no.2:
252-256 Apr-June '64

1. Z Kliniki Chirurgicznej Wydziału Weterynaryjnego Szkoły
Główniej Gospodarstwa Wiejskiego w Warszawie (Kierownik:
prof. dr. med. J. Kulczyński).

ZEMBRZYCKA, Halina

SURNAME (in caps); Given Names

Country: Poland

Academic Degrees:

Affiliation: Surgical Clinic, Veterinary Division, Central School of Agriculture (SGGW - Szkoła Główna Gospodarstwa Wiejskiego), Warsaw; Director: Jozef KULCZYCKI, Prof dr

Source: Warsaw, Medycyna Weterynaryjna, No 4, April 1961, pp 208-209

Data: "Atrophy of the Bone as a Result of Pressure by a Foreign Body."

Co-author:

ZAKIEWICZ, Marek ✓

ZEMBRZYCKA, H.(Warszawa)

Bone tumors of dogs; their clinical picture and histopathologic analysis. Roczn. nauk roln. wet. 70 no.1/4:97-98 '60.

(EEAI 10:9)

(Dogs) (Tumors) (Bones)

POLAND / Diseases of Farm Animals. General Problems.

R-1

Abs Jour : Ref Zhur - Biol., No 17, 1958, No 78888

Author : Zembrzycka, Halina

Inst : Not given

Title : Brief Comments on the Use of Dextran in Surgical Veterinary Practice.

Orig Pub : Med. weteryn., 1957, 13, No.5, 296-300

Abstract : Dextran is a good antishock agent. Investigations were conducted on sick dogs. During shock, one of them was given dextran in combination with cardial and pain-relieving agents, and others with additional blood. The fastest antishock effect was noted during the application of dextran with blood.

Card 1/1

ZEMBURA, Z.; KANECKI, J.

The anodic behavior of iron in phosphoric acid solutions. In English. p.101
BULLETIN. Varsovie
Vol. 5, no. 2, 1956

So. East European Accessions List Vol. 5, No. 9 September 1956

18(3)

POL/39-59-12-1/16

AUTHOR: Sędzimir, Jerzy, Doctor, Engineer, Zembura, Zdzisław,
Doctor

TITLE: Comparative Research into Resistance to Corrosion of
Steel 1 H 13, H 17, H 17 T, H 25 T, 1 H 18 N 9 T, in
Water with Small Chloride Content

PERIODICAL: Hutnik, 1959, Nr 12, pp 473-475 (Poland)

ABSTRACT: The scope is to find adequate chromium steel, to re-
place scarce nickel in chromium nickel steel. Research
was conducted in conditions similar to those in the
finishing stages of wet working of artificial fiber.
Samples of dimensions: 40x15x2 mm of 1 H 13, H 17,
H 17 T, and H 25 T steel, welded and non-welded, were
used and compared with analogical samples of 1 H 18 N
9 T steel. The samples were alternately, wholly or
partly immersed (1 minute wholly immersed, 1.5 minute
in the air, 1.5 minute partly immersed) in distilled
water and in solutions of 0.116 g NaCl per liter and ✓

Card 1/3

POL/39-59-12-1/16

Comparative Research into Resistance to Corrosion of Steel 1 H 13,
H 17, H 17 T, H 25 T, 1 H 18 N 9T, in Water with Small Chloride
Content

3 g NaCl per liter, with, in all three cases, pH being
7.5 \pm 0.3. In distilled water after 17 days, and in
the 0.116 g NaCl solution after 12 days, no changes
were observed, except for rusty spots on the weld of
the welded samples H 17, H 17 T and H 25T in the 0.116
g NaCl solution. In the 3 g NaCl solution, there was
after 2-3 days, visible corrosion and measurable losses
of weight, shown on Fig 1 (non-welded) and Fig 2
(welded samples). Results show that all five non-wel-
ded steels are practically corrosion resistant. In the
0.3% solution one sample (1 H 13) was considerably cor-
roded but samples 1 H 18 N 9 T and H 25 T resisted
well. The picture is different with welded samples.
Corrosion rapidly increases in the H 25 T sample. The
welds of the samples H 17 T and 1H 18 N 9 T suffered
intercrystalline corrosion. It is suggested construc-
ting avivage tubs for artificial fiber production of


Card 2/3

POL/39-59-12-1/16

Comparative Research into Resistance to Corrosion of Steel 1 H 13,
H 17, H 17 T, H 25 T, 1 H 18 N 9 T, in Water with Small Chloride
Content

H 25 T steel, provided that the welding technology is
improved. There are 5 figures and 4 references, 1 of
which is Polish, 1 Soviet, 1 English and 1 German.

ASSOCIATION: Akademia górnictwo-hutnicza (Mining and Metallurgical
Academy, Cracow)



Card 3/3

S/081/62/000/021/029/069
B117/B101

AUTHORS: Mrowiec, Stanisław, Werber, Teodor, Zembura, Zdzisław

TITLE: A case of corrosion of 1X18H9T (1Kh18N9T) steel in the petroleum industry

PERIODICAL: Referativnyy zhurnal. Khimiya, no. 22, 1962, 285, abstract 211185 (Nafta (Polska), v. 18, no. 2, 1962, 48 - 50 [Pol.])

TEXT: The corrosion of condenser tubes in a petroleum distillation unit is described. The tubes, which were made of 1Kh18N9T-type stainless steel with a wall thickness of 2.5 mm, were useless after three months' operation because of pitting and fissuring. Corrosion was particularly strong at the rolled-out spots. Chemical, metallographic, and X-ray analyses revealed intercrystalline corrosion under stress, which was accelerated by the great temperature gradient in the condenser. [Abstracter's note: Complete translation.]

Card 1/1

ZEMBURA, Z., doc. dr.; BIEROWSKI, M., ar.

Rotating disk in the studies of the kinetics of heterogenous reactions.
Pt. 2. Wiad chem 18 no.4:215-232 Ap '64.

1. Department of Physical Chemistry of the Metallurgy of Nonferrous
Metals, School of Mining and Metallurgy, Krakow.

ZEMBURA, Z.

J. Weber's Fosforowanie stali (Phosphating Steel); a book review.

P. 283 (WIADOMOSCI CHEMICANE) (Wroclaw, Poland) Vol. 11, No. 4/5 Apr./May
1957

SO: Monthly Index of East European Accessions (EEAI) LC. Vol. 7, No. 5, 1958

BIEROWSKI, M., mgr.; PAWELKOWA, M., mgr., starszy asystent;
ZEMBURA, Z., dr., adiunkt

The rotating disc in research on the kinetics of heterogeneous reactions. I. The theory of convectional diffusion. Wiad chem 16 no.8:497-517 Ag '62.

1. Katedra Chemii Fizycznej i Elektrochemii, Akademia Gorniczo-Hutnicza, Krakow. 2. Pracownik naukowo techniczny Katedry Chemii Fizycznej i Elektrochemii, Akademia Gorniczo-Hutnicza, Krakow (for Bierowski).

ZEMBURA, ZDZISLAW

Julian Kamecki, Zdzislaw Zembura and Jerzy Traut: "The Anodic Behaviour of Metals, I. Lead in Orthophosphoric Acid Solutions, "Roczniki Chemii, Vol 30, No 1, Warsaw, 1956. Published from the Chair of Physical Chemistry and Electrochemistry of the Academy of Mining and Metallurgy (AGH), Krakow, 21 Jun 55.

ZEMBURA, ZDZISLAW

Julian Kamecki, Zdzislaw Zembura and Jerzy Trau: "The Anodic Behaviour of Metals. II. Passivation of Lead Anodes in Orthophosphoric Acid Solutions, "Roczniki Chemii, Vol 30, No 1, Warsaw, 1956. Published from the Chair of Physical Chemistry and Electrochemistry of the Academy of Mining and Metallurgy (AGH), Krakow, 21 Jun 55.

ZEMBURA, ZDZISLAW

POLAND/Chemical Technology. Chemical Products and Their Application.
Electrochemical manufacturing. Electrodeposition.
Chemical Sources of Electrical Current.

H-12

Abs Jour: Referat Zhur-Khimiya, No 5, 1958, 15152.

Author : Kamecki Julian, Zembura Zdzislaw
Inst : Academy of Mining and Metallurgy
Title : Electrochemical Polishing of Zinc.

Orig Pub: Zesz. nauk. Akad. gorn-hutn., 1957, No 10, 111-120.

Abstract: On studying the behavior of Zn-anodes in solutions of KOH and H_3PO_4 , the authors made attempts to effect electrochemical polishing (P) of Zn. The experiments were carried out in solutions of KOH of 1, 2, 3, 4, 5, 6 and 7 N concentration and also in 7 N KOH containing 0.1, 0.4 and 2.1 gram-equivalents of Zn per liter; in solution of H_3PO_4 of 0.93, 9.8, 19.6 and 43.5 N, and also in 9.8 N H_3PO_4 containing

Card : 1/3

POLAND/Chemical Technology. Chemical Products and Their Application.
Electrochemical manufacturing. Electrodeposition. Chemical
Sources of Electrical Current.

H-12

Abs Jour: Referat Zhur-Khimiya, No 5, 1958, 15152.

0.8 and 1.6 gram-equivalent of Zn per liter. In all the KOH solutions the surface of the Zn underwent P; optimal P occurred in 4 and 5 N KOH, but in this case the surface of the metal revealed contours of dendrites. P of best quality was observed on use of solutions of H_3PO_4 (except the 9.8 N solution and the 9.8 N containing 1.6 g-equivalent of Zn per liter). Optimal conditions of P: concentration of electrolyte of about 10 N, $D_a = 60-80 \text{ a/dm}^2$, voltage 12-15 v, duration 3-6 minutes. In 1 and 2 N KOH, and also in the more concentrated solutions, saturated with Zn, it is possible to produce at the anode well adhering black-blue films which are particularly uniform when they are deposited on a previously polished surface. An interpretation

Card : 2/3

POLAND/Chemical Technology. Chemical Products and Their Application.
Electrochemical manufacturing. Electrodeposition. Chemical
Sources of Electrical Current.

H-12

Abs Jour: Referat Zhur-Khimiya, No 5, 1958, 15152.

0.8 and 1.6 gram-equivalent of Zn per liter. In all the KOH solutions the surface of the Zn underwent P; optimal P occurred in 4 and 5 N KOH, but in this case the surface of the metal revealed contours of dendrites. P of best quality was observed on use of solutions of H_3PO_4 (except the 9.8 N solution and the 9.8 N containing 1.6 g-equivalent of Zn per liter). Optimal conditions of P: concentration of electrolyte of about 10 N, $D_a = 60-80 \text{ a/dm}^2$, voltage 12-15 v, duration 3-6 minutes. In 1 and 2 N KOH, and also in the more concentrated solutions, saturated with Zn, it is possible to produce at the anode well adhering black-blue films which are particularly uniform when they are deposited on a previously polished surface. An interpretation

Card : 2/3

ZEMBURA, Zdzisław

POLAND/Chemical Technology. Chemical Products and Their Application.
Electrochemical manufacturing. Electrodeposition.
Chemical Sources of Electrical Current.

H-12

Abs Jour: Referat Zhur-Khimiya, No 5, 1958, 15160.

Author : Kamecki Julian, Sedzimir Jerzy, Zembura Zdzisław

Inst : Academy of Mining and Metallurgy.

Title : Some Problems of Electrochemical Refining of Copper.

Orig Pub: Zesz. nauk. Akad. gorn.-hutn., 1957, No 10, 143-156.

Abstract: There are considered the theory of electrochemical refining of Cu, effects of individual factors (composition, temperature and rate of flow of electrolyte, D), defects and advantages of the methods used. Also reviewed are the attempts to modify the classical process (for example, electrolysis with ammonium electrolytes, electrolytes containing Cu^+ , etc.). Bibliography 25 references.

Card : 1/1

ZEMBURA, Z.

POLAND / Physical Chemistry. Electrochemistry.

B

Abs Jour: Ref Zhur-Khimiya, No 11, 1958, 35551

Author : Kamecki Julian, Zembura Zdzislaw, Trau Jerzy.

Title : Anodic Behavior of Metals

I. Lead in Orthophosphoric Acid Solutions.

II. Passivation of Lead Anodes in Orthophosphoric Acid Solutions.

Inst : Not given

Orig Pub: Roczn. Chem., 1956, 30, No 1, 253-260; 261-268.

Abstract: I. The relation of the current density i and the potential E of a Pb-anode to the voltage (V) on a 2.99; 22.8 and 40.5 N H_3PO_4 electrolysis (ES) cell has been investigated, and the outward form

Card 1/3

POLAND / Physical Chemistry. Electrochemistry. B

Abs Jour: Ref Zhur-Khimiya, No 11, 1958, 35551

Abstract: of the anode during the ES time inspected. At V below 0.5 volts a Pb phosphate layer forms on the anode surface; at V ranging from 0.85 to 1.2 volts a PbO layer is formed on the anode, and at $V > 1.2$ --a PbO_2 layer.

II. The Pb -anode E versus electrolysis duration t at 1 constant has been studied. At the beginning E remains low (from -0.22 to 0.24 volts), which corresponds to the dissolving of Pb in the form of Pb^{2+} ; then follows a rapid rise of E to 2.1-2.25 volts and a PbO_2 layer forms on the anode. In more concentrated H_3PO_4 solutions 2 breaks in the curve (E, t) can be observed at ~ 0.3 and ~ 1.5 volts, before the peak passivation is reached. It is assumed that the first break

Card 2/3

16

POLAND / Physical Chemistry. Electrochemistry.

B

Abs Jour: Ref Zhur-Khimiya, No 11, 1958, 35551

Abstract: corresponds to the PbO formation on the anode, and the second - to the beginning of PbO_2 formation according to $PbO + 2OH^- \rightarrow PbO_2 + H_2O + 2e^-$. All (E,t) curves have clearly expressed peaks. The passivation time t_p is connected with i by way of the empirical formula $t_p = 1/(ai - b)$, where a and b are constants.

Card 3/3

ZEMBURA, Z.

SCIENCE

PERIODICAL: ROCZNIKI CHEMII. Vol. 31, No. 2, 1959

ZEMBURA, Z. The anodic behavior of metals IV. Copper in sodium hydroxide solution. p. 627

Monthly List of East European Accessions (EEAI) LC Vol. 8, No.4.
April 1959, Unclass

ZEMBURA, Z.

POLAND / Physical Chemistry. Electrochemistry.

B

Abs Jour: Ref Zhur-Khimiya, No 18, 1958, 60345.

Author : Z. Zembura, W. Michalik.

Inst : Academy of Sciences of Poland.

Title : The Limiting Current During Electrolytic Polishing of Copper in A 20 n. H_3PO_4 Solution.

Orig Pub: Bull, Acad. polon. sci., 1957, Cl. 3, 5, No 11, 1073-1079.

Abstract: In order to solve the question concerning the limiting stage of Cu electropolishing (EP) in 20 n. H_3PO_4 , the dependence of the limiting current i_{lim} of Cu dissolution on the concentration c of Cu ions and on the number of revolutions (m) of

Card 1/2